Northern Ireland Electricity Networks

SUPPORTING A GREEN RECOVERY

Presentation to Economy Committee

7th October 2020

THE CONTEXT

The NI Executive's Medium-Term Recovery Strategy[1] published by the Department for the Economy (DfE) recognises the "substantial economic recovery opportunity in... building a more competitive, inclusive and greener economy", and highlighted Clean Energy as one of the potential areas for growth. In response to that Strategy, this document sets out how Northern Ireland Electricity Networks (NIE Networks) can support a green economic recovery within the context of a developing energy strategy for Northern Ireland. We also reiterate our commitment to playing our part in creating a sustainable future that works in the interest of all citizens, including the most vulnerable in our society.

We have focused on the areas in which we are confident that swift action will maximise the economic opportunities for Northern Ireland as we recover from the COVID-19 pandemic, alongside supporting net-zero ambitions. Our proposals also focus on opportunities that benefit the customer, including the most vulnerable. Industry and government have a responsibility to ensure decisions taken today reflect societies needs in the future and we welcome further engagement on this point.

We have set out eight tangible areas of opportunity to support the economy by unlocking investment in low carbon infrastructure and fast-tracking decarbonisation of heat and transport. They include:

- Joining up policy and regulation to encourage investment;
- Accelerating investment in renewables;
- Bringing forward network infrastructure investment;
- Improving the planning process;
- Accelerating low carbon transport with initial emphasis on delivery of EV charging infrastructure;
- Accelerating the digitalisation of the energy-system to support the provision of data;
- Supporting energy efficiency through modernisation of building regulations;
- Optimising innovation for NI.

We also set out the impact the proposal will have on skills in the energy industry and the outcomes customers and society can expect.

Our goal is two-fold: to enable NI to tackle the climate emergency and to compete economically with our neighbours in Great Britain and the Republic of Ireland. Currently, there is a risk of Northern Ireland being left behind GB and RoI in terms of missed opportunities.

We believe a sense of urgency is needed to generate momentum in this area. While the Energy Strategy process will determine the long term direction and the policy mechanisms to achieve that, there are many decisions that could be made now to help make progress pending conclusion of that process. Our proposals are focussed on progressing projects and solutions to stimulate our economy. The focus is low risk and least regrets options – projects that use proven technologies and have recorded significant successes in other regions that could easily be replicated in NI.

To realise the full potential of Clean Energy for the Northern Ireland economy, action and input is required from the Northern Ireland Executive, the UK Government, Regulators, and all industry participants. NIE Networks does not have all of the answers but is putting forward practical proposals that we believe could contribute to creating higher paying jobs; developing a highly skilled and agile workforce; and delivering a more regionally balanced economy, as part of a Green Recovery.

NIE Networks welcomes the opportunity to work with all other stakeholders to help advance these objectives and is open to engaging on these proposals and any others that might be put forward for consideration.

Finally, NIE Networks is fully supportive of DfE's Energy Strategy process and are committed to working collaboratively with UR, SONI and other stakeholders as part of that. We set out our thoughts on opportunities for the development of energy policy in both DfE's Call for Evidence and the subsequent Economy Committee's Micro Enquiry. We understand that development of a new energy strategy is progressing well and this will provide a long term policy context for future investment, but that won't conclude for at least 14 months. However, there are opportunities to accelerate investment in advance of concluding the new energy strategy and we welcome discussion on these. With the right decisions taken this year we could see a substantial increase in investment in this sector next year and beyond.

NIE NETWORKS - OUR ROLE

NIE Networks is the owner of the electricity transmission and distribution networks in Northern Ireland, transporting electricity to over 880,000 customers including homes, businesses and farms.

NIE Networks is owned by ESB but operates as an independent organisation with its own Board and management teams and separate regulation via the Utility Regulator (UR) for NI.

Our role is to maintain and extend the electricity infrastructure across Northern Ireland, connect customers to the network and ensure that our equipment is safe and reliable. We also provide electricity meters and metering data to suppliers and market operators.

NIE Networks is a regulated company and business activities are overseen by the UR. Our business plan for delivering our services to customers is approved for a number of years ahead, with the current price control period set to run until 2024.

We invest over £100 million annually in maintaining and upgrading the electricity transmission and distribution network in NI to ensure it remains in a safe and reliable condition.

Through employment, taxes and supplier contributions we also contribute over £150 million annually to the local economy in NI.

We provide direct employment to almost 1,200 highly skilled individuals and sustain many hundreds of jobs through our contract and supply chain.

We do not have a commercial interest in selling more electricity – our role is to be an enabler of the energy transition and to provide a network to make that happen.

SUPPORTING OUR CUSTOMERS

It is vitally important that whatever steps are taken to support a green economic recovery and the energy transition, the needs of customers are met – both now and in the future.

To do so, there is an urgent need to advance initiatives for greater engagement with and involvement of communities and customers. Simple impartial advice, mechanisms for information sharing and support for community energy projects are all needed. Measures are also required to support the most vulnerable in society, including financial support mechanisms. Studies have indicated that most people are happy to make changes needed to move towards a net zero carbon economy, but they need help and advice on how to do so.

We are mindful too of the need for downward pressure on electricity costs for both commercial and domestic customers and that all policy must consider price impact. This document therefore sets out options that minimise the impact of costs whilst contributing positively to the economy.

1 JOINING UP POLICY AND REGULATION TO ENCOURAGE INVESTMENT

Opportunity

The regulatory mandate in NI restricts the Utility Regulator (UR) from considering environmental and economic issues relating to the electricity sector in addition to its customer protection mandate, hindering capital investment. Broadening the mandate to consider the need for decarbonisation and economic development would provide an opportunity to create a regulatory framework that supports innovation and strategic investment. If the regulatory mandate permitted building ahead of need, we could make the "least regrets" investments necessary for our long-term net zero goals whilst creating green jobs and supply-chain opportunities helping to energise cities, towns and villages across Northern Ireland. Having the infrastructure in place attracts development. If not, we risk investors taking their projects to other regions. In addition, network connection charges in NI are higher than GB and ROI due to a policy difference in approach to allocation of costs between connecting parties and the general body of customers, and there is an opportunity to address this to help economic competitiveness.

Proposal

What NIE Networks can do:

- Consult with DfE and the UR to:
  - Consider change to the current regulatory mandate;
  - Highlight opportunities to change the connection charging policy to make NI an attractive place to invest;
  - Identify areas of anticipatory "least regrets" investment in both the electricity grid and also in the necessary supporting telecommunications, IT and data infrastructure.
- Work with Government and UR to explore the optimum means of funding such investment through a combination of government funding and electricity tariffs.

What the NI Executive can do:

- Expand the mandate of the UR to allow it to consider net zero and wider economic benefits for NI consumers, in tandem with protecting consumers' interests;
- Endorse the requirement for a regulatory model that enables anticipatory investment that facilitates accelerated development of low carbon technologies and attracts investors; while delivering best value for customers;
- Commence a review of connection charging policies and regulations to align NI with other regions, making it competitive and an attractive place to invest.

2 ACCELERATING INVESTMENT IN RENEWABLES

Opportunity

Northern Ireland is a world leader in terms of renewable electricity generation. 48% of all electricity consumed in NI now comes from renewable sources. With over £3 billion of investment undertaken over the last decade or so to achieve this delivering significant economic and environmental benefits. We welcome the Economy Minister's recent statement that the 2030 target for renewables will not be less than 70% but formal targets are needed as well as a route to market for new renewable generation. Many renewable technologies no longer need substantial subsidies. However they do need mechanisms to provide some certainty on market access and income streams to enable the investments to be bankable.

Proposal

What NIE Networks can do:

- Work with the UR to introduce a new non-firm offer process to enable connection offers currently in planning pipeline;
- Increase our capability to monitor our low voltage network to improve visibility of the impact of renewables;
- Work with local communities, authorities and developers to bring forward investment proposals to future proof the network;
- More widely share information regarding current capacity and impact of changes in future demand;
- Use established forums to identify opportunities and blockers.

What the NI Executive can do:

- Formally adopt the Minister's proposed target of at least 70% renewable electricity by 2030 *(pending the final Energy Strategy)*;
- Accelerate consideration of route to market solutions for renewable energy as part of the Energy Strategy development process;
- Be proactive in facilitating enduring legislation/ licence changes to ensure connections process in NI enables achieving 2030 *(and future)* targets;

3 BRINGING FORWARD NETWORK INFRASTRUCTURE INVESTMENT

Opportunity

There is a substantial amount of investment still to be undertaken within NIE Networks' existing regulatory price control. NIE Networks, SONI, the UR and the DfE could work proactively to accelerate this investment in the context of the need for economic stimulus, making a substantial difference in the amount undertaken over the next 18 months. NIE Networks could scale up to deliver an additional £50m of work annually supporting a significant local supply chain. In GB, BEIS and Ofgem are working proactively with the Network companies to see how they can accelerate investment within their price controls.
A similar approach here could make a significant difference.

Proposal

What NIE Networks can do:

- Identify those projects which may be suitable to bring forward;
- Collaborate with UR and SONI to improve our processes to fast track approvals for investments especially those that support network resilience and accommodate low carbon technologies;
- Consult with stakeholders on proposals to upgrade the standard connection capacity of supply for new homes to future proof for low carbon technologies such as EVs.

What the NI Executive can do:

- Establish 2030 targets for a low carbon economy to drive the right behaviours across customers, generators and business;
- Facilitate policy and process changes that will stimulate investment in the market;
- Endorse regulatory actions to accelerate forward investment in the network.

4 IMPROVING THE PLANNING PROCESS

Opportunity

There are a number of consented renewables projects with funding ready and each of these will support the local job market and the construction sector. The average planning timeline for major applications is 53 weeks, against the Department of Infrastructure's target of 30 weeks. This compares to just 13 weeks in England for similar projects. Even a small network infrastructure project with investment in the region of £5 million can unlock private capital projects in the region of £60 million investment – so any delay has a significant, consequential economic impact.

Solutions adopted in other jurisdictions should be considered such as a fast track planning process for 'green development' projects. There is also a need for a Northern Ireland Strategic Planning policy which takes account of targets, timelines, grid capacity, grid connection process and optimal locations for renewable production.

Proposal

What NIE Networks can do:

- Identify projects which should be prioritised to accelerate delivery of key objectives;
- Collaborate with UR and SONI to improve our own processes and fast track projects needing planning support;
- Working with stakeholders to support their plans for connections infrastructure;
- Working with developers to facilitate progress of their build plans.

What the NI Executive can do:

- Develop a consistent, coordinated and fast-tracked planning process outlined in a new NI strategic planning policy which prioritises the efficient delivery of low carbon and renewable projects with appropriate targets, timeframes and accountabilities. Ensure the existing Department-led forum has a renewable focus and considers best practice models from around the world *(e.g. New Zealand)*;
- Provide clearer guidance to local planning authorities on the efficient application of current planning regulations, including setting binding timescales and increased accountability for statutory consultees.

5 ACCELERATING LOW CARBON TRANSPORT WITH INITIAL EMPHASIS ON DELIVERY OF EV CHARGING INFRASTRUCTURE

Opportunity

Decarbonising transport will open Northern Ireland to economic growth, create jobs and help revitalise areas which have suffered from poor transport infrastructure. In the immediate term, developing an ultra-rapid charging hub infrastructure across NI would arguably have the biggest impact in terms of economic stimulus, due to the high investment costs and promotion of the electric vehicle (EV) sector. Rapid charging hubs are effectively the 'filling station' for EVs and are an important and necessary element of a decarbonised transport sector.

The 'Plugged in Places' scheme *(operated by OLEV in 2012 and 2013)*, saw the first fast public EV charge points installed in Northern Ireland and we were at the forefront within the UK in terms of the EV public charging points per head of population. However, no further investment has been made since then and NI now lags far behind the rest of the UK.

Proposal

What NIE Networks can do:

- Work with the Department for Infrastructure (DfI) and other relevant authorities to identify any current policy barriers to the delivery of EV charging infrastructure;
- Work with any third parties who are interested in providing public EV infrastructure to ensure that timely connections can be provided;
- In the absence of other players, NIE Networks is prepared to kick start the provision of EV charging infrastructure and finance the investment if there is no viable market alternative. This would require approval from DfI and agreement with UR on funding mechanisms.

What the NI Executive can do:

- Leverage the Energy Strategy Transport Working Group to propose interim policy changes to Government that will help grow electric vehicle uptake in NI and remove barriers to EV infrastructure roll out. The group should also determine optimal strategy for modernisation of the existing assets.
- Engage with UK Government to seek to create an EV Infrastructure Investment fund specifically for NI to ensure that UK funding is apportioned equally between the regions. Funding must also be ring fenced so that when allocated to NI, it serves its purpose – to support the transition to a low carbon economy.

6 ACCELERATING DIGITALISATION OF THE ENERGY SYSTEM

Opportunity

The digitalisation of the energy industry is a fundamental foundation to a net-zero future. The data generated by digitalisation is key to supporting climate change ambitions. Data helps network owners manage the systems more efficiently and helps customers make more informed choices about their consumption. Smart (or intelligent) meters and the associated telecommunications infrastructure gives access to this data, providing information on energy usage, helping customers to be energy efficient and save money. Smart meters have already been rolled out across Europe, including Italy, Sweden, Finland and the Netherlands. In France, Spain, Greece and Denmark rollouts are proceeding at a steady pace. Despite initial teething problems experienced in GB, BEIS is supportive of a continued roll-out, citing potential savings of £40 billion between now and 2050. Smart meters are currently not an option for Northern Ireland domestic customers, who have meters with more limited functionality.

Options regarding a smart meter roll-out will be considered through the energy strategy process, which will take until autumn 2021 to complete. It is prudent to use the interim time period to deploy a pilot scheme now for customers already availing of low carbon technologies. That will enable a better understanding of how these technologies can be best integrated and give better choices for customers, which could in turn form part of the energy strategy decision making process.

Proposal

What NIE Networks can do:

- Work with the UR to scope and commence a robust intelligent meter trial, focussed on customers availing of Low Carbon Technologies already;
- Liaise with the DfE as they update the business case taking account of both customer and network operator benefits;
- Work with the UR to identify least regrets decisions that could be progressed at this time, including commissioning a scoping study to look at options for a NI smart-metering model.

What the NI Executive can do:

- DfE to urgently update the business case to consider implementation of smart – intelligent metering for NI, focussed first on LCT customers and then on the broader customer base;
- Initiate a trial of significant scale for smart meters as part of an integrated solutions for customers using low carbon technologies.

7 SUPPORTING ENERGY EFFICIENCY THROUGH MODERNISATION OF BUILDING REGULATIONS

Opportunity

Significant benefits can be realised for our society through the building of advanced, sustainable and resilient housing infrastructure. Both GB and RoI building standards already reflect a direction of travel to ensure near zero-carbon dwellings for the future. Aligning Northern Ireland building regulations closer with GB and RoI will result in the creation of low carbon buildings now, thus avoiding the need to retrofit properties being built today in the years to come.

The Energy Savings Trust calls for a deeper energy retrofit in NI than planned for the rest of the UK, describing it as a no regrets option. From an economic perspective, the real benefit of a retrofit programme is that it is labour intensive – therefore supporting local employment in every town and county across NI. The skill sets required are already available in the NI construction sector.

Proposal

What NIE Networks can do:

- Contribute to the work of the Department of Finance (DoF) in their review of the regulations by sharing data or assigning subject matter experts to support their inquiries;
- Assist in the development of electrical standards to enable most effective retrofit solutions;
- Facilitate deployment of supportive low carbon technologies alongside retrofit;
- Undertake a review of electrical design standards for new homes and developments to future proof the network.

What the NI Executive can do:

- Set an end date for use of fossil fuel boilers in new homes, however this is only realistic alongside an update to the Building Regulations;
- Implement a date for changes to building regulations in line with GB and RoI to trigger an immediate industry response and in so doing, set a standard for insulation so that buildings are sufficiently insulated for low-carbon heating options;
- Explore funding streams options for retrofitting existing buildings[2] for those able to pay and further support available to those less able to pay.

8 OPTIMISING INNOVATION FOR NORTHERN IRELAND

Opportunity

To close the innovation gaps between Northern Ireland, GB and RoI, it is essential that we build on existing innovation in low carbon energy by investing in areas such as large-scale trials of heat pumps, hybrid heating schemes, hydrogen electrolysis, intelligent metering and energy storage. In particular, the undertaking of real-world trials is crucial to ensure that supply chains can develop; that the appropriate skills training is in place; that the public is better informed and engaged on the steps ahead; and that deployment can happen at scale. Although some trials are already underway here, increased levels of funding will enable solutions to be progressed much faster. This could save consumers and government money but it is crucial that there is a step change in the funding allocated to NI to enable these innovation projects to develop at pace.

Proposal

What NIE Networks can do:

- Further collaborate with stakeholders such as Universities, Councils and the Housing Executive to provide data and expertise into projects *(we have invested £6.3m in innovation trials to support our development of a future network - we will build on this work)*;
- Develop a whole systems approach to enable technologies for other stakeholders.

What the NI Executive can do:

- Increase funding levels for projects – particularly those already underway and those underpinned by well-advanced technologies;
- Support decarbonisation trials at scale – this could include low-carbon heating solutions and smart meter amongst others;
- Encourage innovation across the supply chain including leveraging opportunities in clean energy;
- Target new market opportunities for businesses involved in the development and delivery of low carbon technologies;
- Seek opportunities to expand our use of home grown electricity, and to reduce our dependence on imports of fossil fuel.

FUNDING THE PROPOSAL AND EXPECTED OUTCOMES

Cost

- It is essential that Northern Ireland retains a competitive electricity price and all policy measures must consider the impact on price.
- The policy measures highlighted do not require substantial public funding – but is UK Government funding accessible? *(Significant funding allocations for EV Charging and home energy efficiency retrofits).*
- Additional investment will be mainly funded by the industry itself including NIE Networks – an additional £100m investment in the electricity network would add less than 0.5% to the average electricity bill.
- But extra demand *(from displacing fossil fuels)* will help to offset price impact – more investment, more economic activity, more clean energy while maintaining competitiveness and reducing carbon dependency.

Outcomes

- Bringing forward investment that might otherwise happen in 2024-26 to 2021-23 which could be of the order of > £250m, including additional investment by wind developers, and the providers of other low carbon technologies as well as additional investment by NIE Networks. Much of this investment will be regionally focused and will have a significant positive economic stimulus across all council areas in NI.
- Forward investment will help to develop a pipeline of future investment that will flow beyond the next three years.
- It will accelerate the creation jobs and enable skills development and reskilling opportunities in both existing and new aspects of Clean Energy - opportunities for indigenous businesses and for the education sector to reposition to meet those needs.
- It will increase the availability and reduce the cost of access to the electricity network which will benefit all new development.
- It will help to positon NI as a greener smarter and more innovative economy and more attractive for foreign direct investment across other sectors.
- It will provide for a positive engagement with consumers on the broader decarbonisation journey and encourage people to invest more in that.

IMPACT ON JOBS AND SKILLS

Prior to COVID-19, DfE in partnership with the OECD published their research into skills and future job needs[3]. The number one issue for business was access to talent and labour. Since then the context has changed fundamentally but the systemic issues that we need to address within our economy remain unchanged. Statistics published recently show individuals claiming unemployment benefit now exceeding 62,000 and proposed redundancies of over 9,000, double the number recorded in the previous twelve months[4]. OECD recognise that we still have too many in our workforce with no or low skills (16%), low levels of productivity (lowest in UK and Ireland), low levels of in work progression and high levels of economic inactivity (25%).

If implemented, the proposals outlined will help to create new services, drive efficiencies and create opportunities for consumers. Industry will require the creation of new roles to take full advantage of new technologies, such as those using artificial intelligence or digital skills, which will require different combinations of competencies within the workforce.

The Energy Networks Association predict that for the UK energy industry alone we can expect to see new job opportunities in a range of areas including Engineering, Operational, Environmental and Digital. Following an acceleration of new products and services, there will be an increase in customer service opportunities to manage consumer experience. We will also see an increase in the resource required to support vulnerable customers.

Both industry and the NI Executive must maximise investment in skills and support re-skilling initiatives to help us deliver the jobs needed while building public recognition of the careers available in the sector.

NEXT STEPS

NIE Networks, as owner of the electricity networks in Northern Ireland, is well placed to be able to play a full role in supporting the NI Executive's objectives to work towards net-zero emissions and deliver a strong, speedy, green economic recovery. There is a window of opportunity now to immediately address climate issues whilst creating economic opportunity and new jobs. NIE Networks welcomes collaboration with UR, SONI and industry and will work with all stakeholders to help support this ambition and progress the actions identified. We ask that the NI Executive and relevant Government Departments give consideration to the proposals outlined in this document and provide the policy direction needed to take this forward.

NOTES

[1]
Rebuilding a Stronger Economy, Department for the Economy, 17th June 2020: https://www.economy-ni.gov.uk/publications/rebuilding-stronger-economy-medium-term-recovery

[2]
The UK Government's manifesto committed £9.2bn of energy efficiency improvement funding for homes, schools and hospitals, and a £270m Green Heat Network Fund and Clean Heat Grants.

[3]
OECD *(2020)*, OECD Skills Strategy Northern Ireland *(United Kingdom)*: Assessment and Recommendations, OECD Skills Studies, OECD Publishing, Paris, https://doi.org/10.1787/1857c8af-en

[4]
NISRA statistics at 16th September 2020.

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